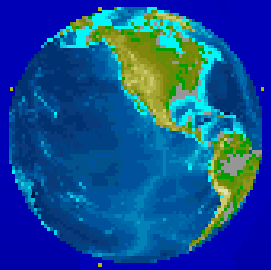
Food Safety in South Korea and Role of KFRI



Chun, Hyang Sook
Korea Food Research Institute
hschun@kfri.re.kr

Korea Food Research Institute

KFRI Location

Changchun
Shenyang
Beijing
Tianjin
yuan
Zhengzh
Xi'an
NORTH KOREA
Pyongyang
Seoul
SOUTH KOREA
Pusan
Yellow Sea

http://www.kfri.re.kr

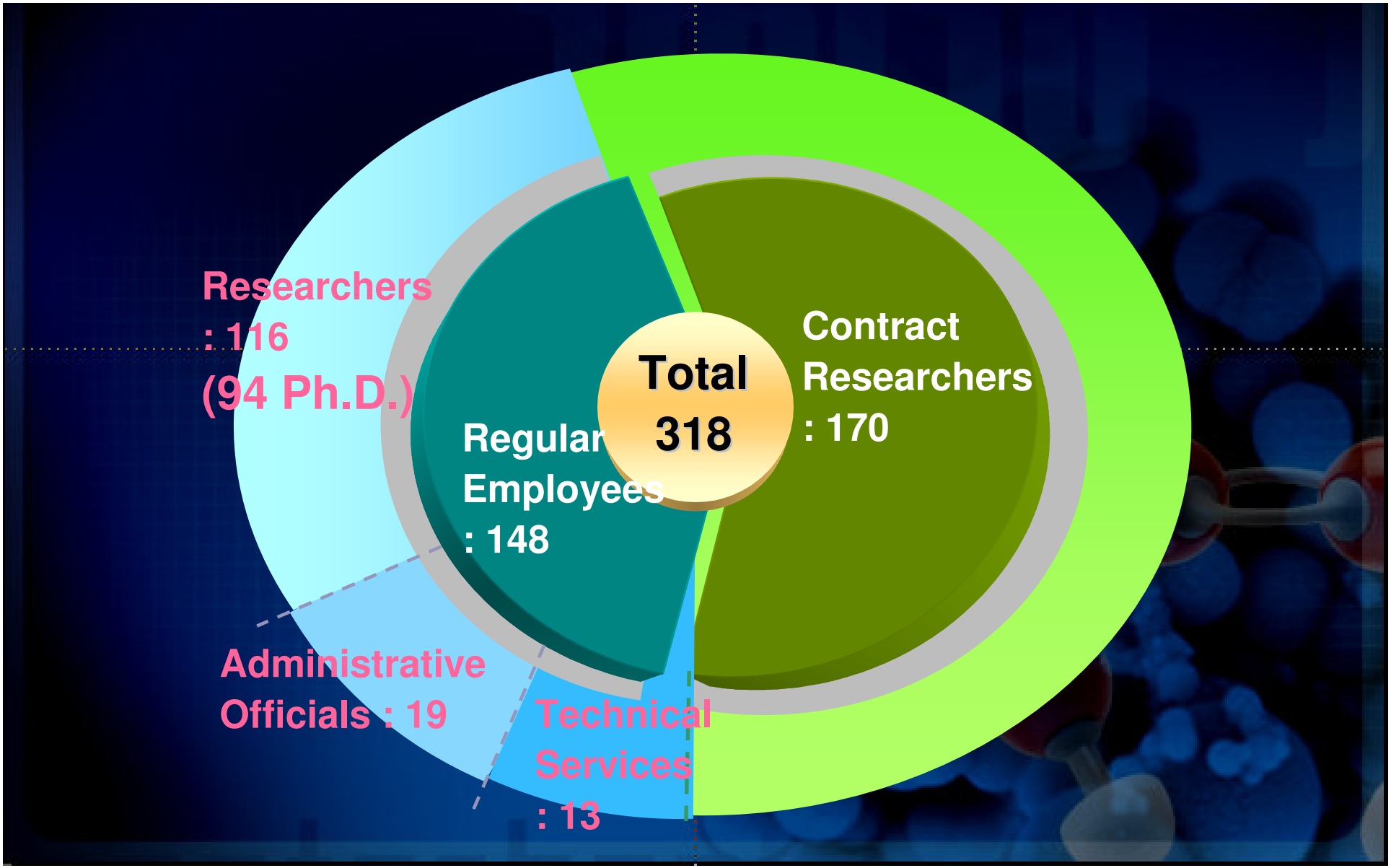
Organization

KFRI Missions

As a leading incubator for the food science and technology in South Korea

- To advance food science and technology
- To raise value of agricultural, forestry and fishery products
- To uplift the quality and safety of foods
- To strengthen global competitiveness of food industry

Employees : 318



Major Research Areas

Focus on

- Healthy and functional foods
- Fresh and safe foods
- Convenient foods
- Traditional foods

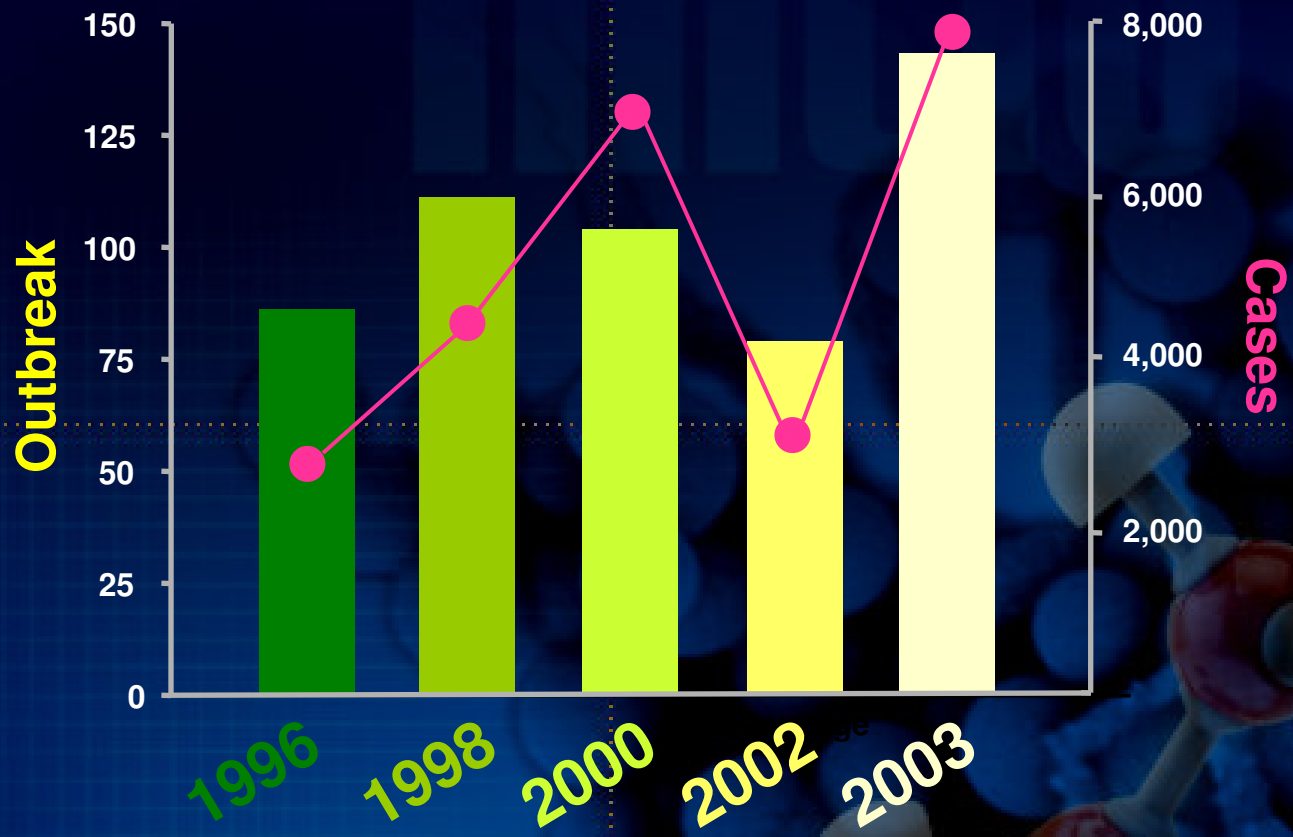
Work on

- Carbohydrate, protein & lipid science
- **Food safety and risk Assessment**
- Separation Science
- Food microbiology and biotechnology
- Food processing and engineering
- Post-harvest technology

Trend in Food Safety

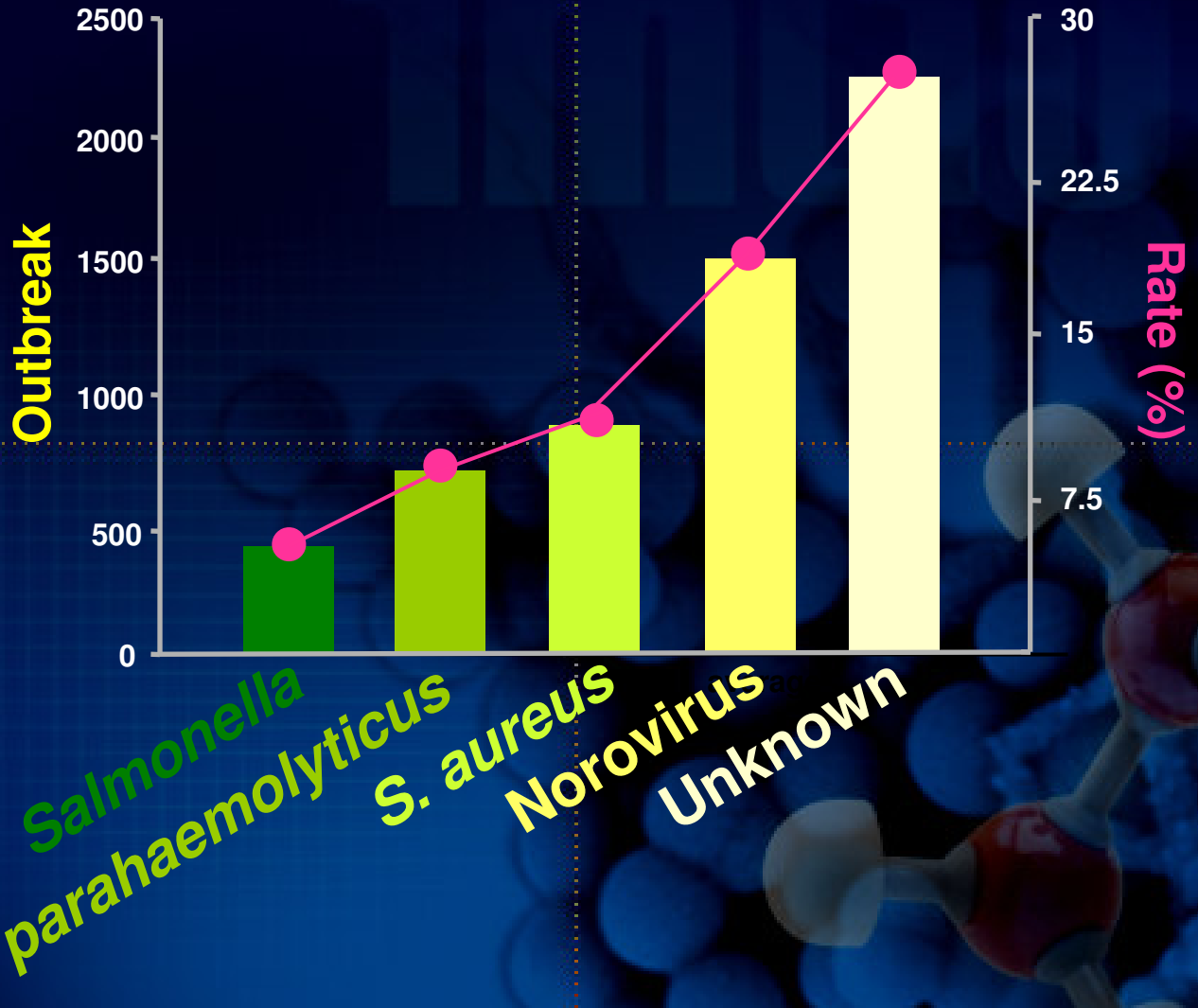
- While food poisoning used to be reported mostly in the summer, it is now reported all year long.
- Outbreaks in restaurant and school meals have increased tremendously with the development of the food-service and restaurant industries.

Foodborne illness outbreaks and cases



In South Korea, although food hygiene has been improving, the numbers of foodborne illness outbreaks and cases appear to have increased, triggering growing public concern.

Major causative agents of foodborne illness outbreaks, 2003



The major microorganisms causing foodborne illness are changing

SOUTH KOREA

Projects and budget for key chemicals and microorganisms in 2005 and 2006

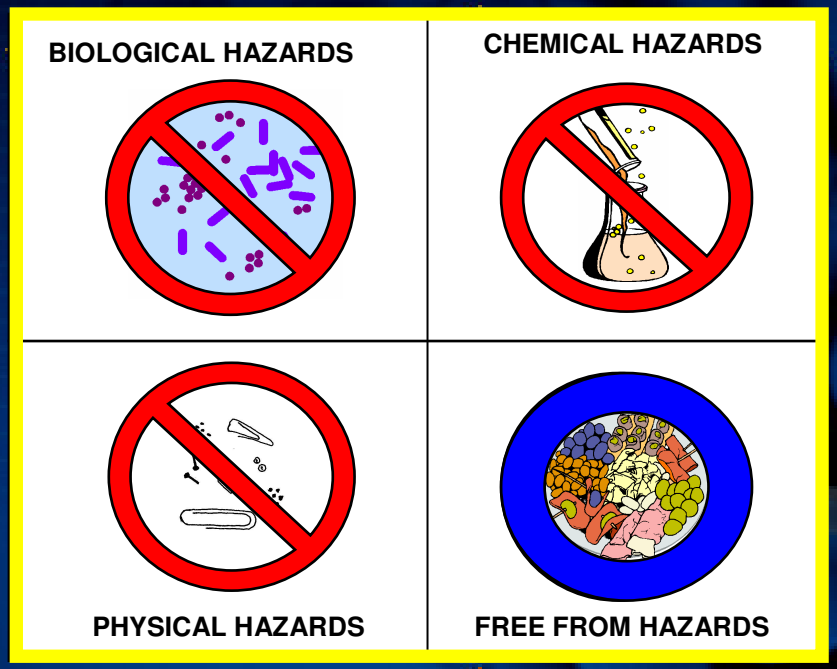
(Unit: Million Won)

Targets	Toxicity	Monitoring	Exposure Assessment	Std. & Spec.
Acrylamide				
Trans faffy acid		Nutrition Team	'06 : 30	
Stevioside	'06: 100			
Analogues of Viagra	'06: 50	'05 30		
Dioxins (PCB)		'06 149		
Cd		'05 3,000*		
Iodine				
Cyanides				
B. cereus		'05 150		
S. aureus		'05 150		

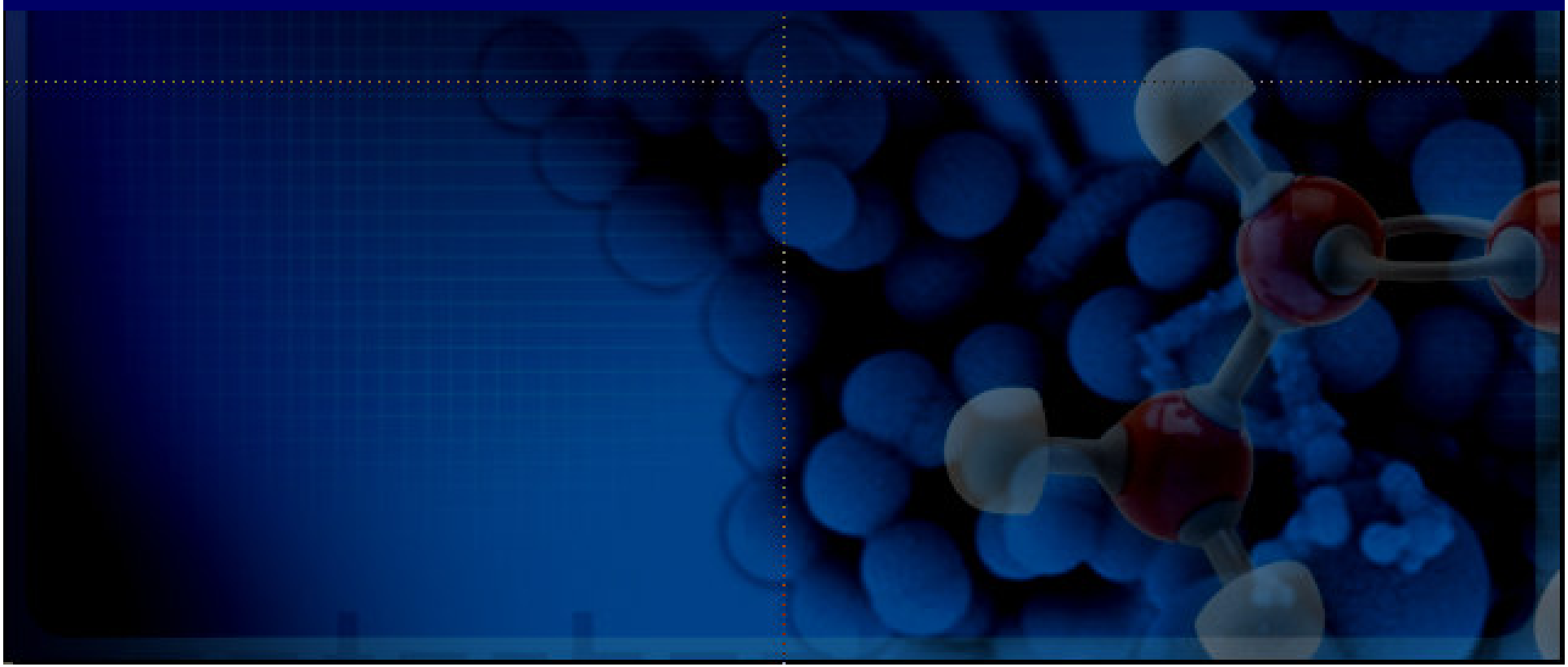
*: Hazardous heavy metals in 10 agricultural products

Source: KFDA (2005)

Support and promote the KFRI effort to create an environment for Farm-to-Table Food Safety Concept.



THANK YOU!



Challenges to Food Safety

- ***Changes in agronomic process***

  Agricultural practices have contributed to the increased risks associated with fresh fruit and vegetables.

- ***Increase in international trade***

  International trade allows for the rapid transfer of contaminants from one country to another.

- ***Changes in food or agricultural technology***

  Advances in processing, preservation, packaging, shipping and storage technologies bring new forms of foods to the market, and even new hazards.

  - The emergence of *Listeria monocytogenes* due to the use of refrigeration, GM food etc.

Challenges to Food Safety

- ***Changes in animal husbandry***

  Mordern intensive animal husbandry practices resulted in the emergence and increased prevalence of several human pathogens requiring increased use of antibiotics.

- ***Increase in travel***

  Persons exposed to foodborne illnesses in one country can expose to others in a thousands of miles from the original.

- ***Increase in susceptible populations***

  By the year 2025, more than one billion of the world's population will be over 60 years of ages who are susceptible to foodborne diseases.

- ***Changes in lifestyle and consumer demands***

  Consumer like to access seasonal foods all year, and industrialization and urbanization have incurred mass consumption of food prepared outside the home or street food.